



Beech Tree Assessment

83 Longwood Ave, Brookline, MA

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Table of Contents

Summary	2
Introduction.....	2
Background	2
Assignment	2
Limitations.....	2
Purpose and Use	2
Observations	2
Discussion	3
Conclusions	3
Site Map	4
Images	5
Image 1 – Tree on Site	5
Images 2-4 - Root zone.....	6
Image 5 - Structure	7
Image 6 – Crown in Decline.....	8
Tree Protection Zone.....	9
Arborist Disclosure Statement	10
Assumptions and Limiting Conditions	11
Certificate of Performance	12

Summary

I was asked to assess the current condition and future prospects of a tree located on a proposed construction site. The tree may be preserved only if there is a commitment to preferential treatment including providing adequate area for root growth and continued aftercare.

Introduction

Background

I was contacted by Mr. Daniel Danesh regarding a Copper beech proposed for removal on a proposed building project. Town officials have requested a report on what may be required to preserve the tree.

Assignment

After discussions with Mr. Danesh, I agreed to:

1. Visit the site. Assess the health, structure and dimensions of the subject tree
2. Define the area and conditions required for a Tree Protection Zone
3. Provide a written report

Limitations

Foliage obscures a clear view of the interior crown

Purpose and Use

Provide information and management options regarding the preservation of a large tree on the property

Observations

I arrived at the site at 83 Longwood Ave, Brookline, MA on July 1, 2021 (Site map, pg. 4). The large European Copper beech (*Fagus sylvatica* "purpurea") measured 36" dbh, and approximately 50 feet in height and width. The tree is located to the northwest of the existing building (Image 1, pg.5). The root zone and crown are constricted by the building to the south, a retaining wall to the east, and the street to the north. A street tree is also located to the north. Additional foot paths and walkways are within the root zone and close to the trunk (Images 2-4, pg. 6).

The area directly around the lower trunk has been filled with soil. No clear root collar or buttress roots are visible. Flat areas where the trunk enters the ground are potential signs of girdling roots.

Parts of the trunk were not visible due to some Boston ivy, but it appears solid. The first scaffold limb arises from the trunk at approximately 6 feet and grows toward the building. Co-dominant scaffolds arise at 12 feet. The unions are good and no defects were noted. Besides a large broken branch stub on the south side, crown structure and branch unions are also in good condition (Image 5, pg. 7).

The upper crown exhibits a fair amount of die-back, with small, sparse foliage especially evident on the major scaffold to the south (Image 6, pg. 8).

Discussion

It is thought the life span of a European Beech in the Northeast to be in the 100 – 150 year range, but may be as much as 400 years given the site conditions of its native range. Copper Beech do not tolerate disturbance in the root zone, and mature specimens are best left alone except for crown cleaning or pruning involving small diameter cuts.

They are fair compartmentalizers at best. Sunscald is a serious concern when bark tissue is overexposed. Beech bark disease can be a problem and in the Northeast, *Phytophthora* is a very serious disease, not uncommon in older specimens.

This large specimen has somehow survived the ravages imposed upon it in a tough location, but is now showing signs of decline, consistent with the limited and compacted root zone. Additional space must be provided for preservation to be realistic. A tree of this size, species and condition would require a large area to be undisturbed (Tree Protection Zone, pg. 9).

Efforts to preserve the tree would involve:

- Careful removal of the existing building foundation and the retaining wall
- Providing additional space for root growth
- Root crown excavation and root pruning
- Soil rehabilitation and moisture management
- Targeted pruning
- Monitoring and treating for pathogens.

Conclusions

Given its current condition, sensitivity to environmental changes, and site restrictions, this tree is not the best preservation candidate. With intervention and continuity of care the Copper Beech may be preserved, but preservation demands (space), costs, uncertainty of success, and impediment to construction are likely prohibitive.

Site Map



The above map shows the site and subject tree location.

Images

Image 1 – Tree on Site



A view of the tree looking south

Images 2-4 - Root zone



*Above: Views of the root area from west and east. The roots are confined and the soil compacted.
Below: A closer view of the trunk shows the lack of a visible root crown or buttress roots.*

Image 5 - Structure



Boston ivy grows up the trunk and partially obscures the view, but the trunk and tree architecture appear sound

Image 6 – Crown in Decline



Die-back and sparse foliage in portions of the upper crown are a clear indicator of decline.

MAP 126
LOT 50
N/F LANDS OF
FLORENCE BUEHLER &
GEORGE V. BUEHLER
BK. 4789, PG. 700

NEW BUILDING
FOOTPRINT

Copper Beech

45'

Gaffin Tree

Tree Care ~ Appraisal ~ Assessment

Arborist Disclosure Statement

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways we don't fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate them.

I, _____, acknowledge that I have received a copy of this disclosure and that I have read and understand the statement.

Signed _____ Date _____

Assumptions and Limiting Conditions

- 1** Any legal description provided to the consultant / appraiser is assumed to be correct. Any titles and ownership to any property are assumed to be good and marketable. No responsibility is assumed for matters of legal character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
- 2** It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other government regulations.
- 3** Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant / appraiser can neither guarantee nor be responsible for accuracy of information provided by others.
- 4** The consultant / appraiser shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
- 5** Loss or alteration of any part of this report invalidates the entire report.
- 6** Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior written or verbal consent of the consultant / appraiser.
- 7** Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant / appraiser--particularly as to value conclusions, identity of the consultant / appraiser, or any reference to any professional society or institute or to any initialed designation conferred upon the consultant / appraiser as stated in his qualification.

Certificate of Performance

I, Howard Gaffin, certify that:

I have personally inspected the tree(s) on the property referred to in this report and have stated my findings accurately. The extent of the evaluation and/or appraisal is in the attached report.

I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no bias with respect to the parties involved.

The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.

My compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboricultural practices.

No one provided significant professional assistance to the consultant, except as indicated within the report.

I further certify that I hold the following credentials:

- Registered Consulting Arborist #458
- Board Certified Master Arborist #NE-0363B
- Massachusetts Arborist Association Certified Arborist#1468

I have been involved with the practice of arboriculture for over 40 years.

Signed 

Date 7/9/2021